of facts: F. Bourlière wades systematically through the Primates, summarizing observations on each species whose social groupings have been studied; J. Piveteau similarly presents the main Primate fossils.

An appropriate next step would have been to present the relevant findings of students of vertebrate, especially mammalian, behaviour. Unfortunately, this is not achieved. M. R. A. Chance writes on the "instinctive social bond" of Primates but fails to give a clear statement on the vexed topic of "instinct"; he is also uncritical on less general ethological concepts, such as that of "displacement behaviour"—now largely discarded. H. Hediger, justly respected for his studies of animals in zoos and circuses, discusses the evolution of territory: he falls into the trap of equating territorial behaviour, based as it is on a repertoire of fixed, species-characteristic social signals and responses, with the infinitely variable, culturally determined, property-owning behaviour of man.

Most of the remainder are valuable. D. A. Hamburg raises the important question of the sorts of "stress" to which we are subjected nowadays. Like other mammals we have the capacity for "anticipatory mobilization" of our physiological resources for meeting danger; but unlike them it seems that modern man (called by Hamburg "the contemporary human organism") often "gets mobilized for exertion but ends up doing little or nothing—preparation for action, without action." Hamburg does not answer the questions he asks but deserves thanks for raising them.

A. H. Schultz contributes a long, valuable and scholarly article on structure in relation to development and behaviour. The editor, with I. DeVore, gives an excellent account of the social behaviour of baboons and the light it throws on the evolution of human behaviour. L. Pericot writes absorbingly on the social life of the hunters of the Upper Palaeolithic, as shown in the art of the cave paintings; his discussion of magic in this context is most illuminating. K. P. Oakley writes informatively and imaginatively on man's use of fire. H. V. Vallois covers a wide range of topics—but especially the development of language—with similar authority. W. S. Laughlin writes on the unexpected subject of the acquisition of anatomical knowledge by early man: some of his comments have implications for education in our own day. There is also a rather disappointing chapter, by E. W. Caspari, on the fundamental subject of genetics.

Symposia are now pouring off the presses and evoking anguished cries from potential readers. This one is better produced, better written and, in general, decidely more useful than most. It will help people working, or interested, in many departments of human biology.

S. A. B.

GENETICS

Muller, H. J. *Studies in Genetics: The Selected Papers of H. J. Muller.* Bloomington, 1962. Indiana University Press. Pp. xiv + 618. Price: Paper $4.95; Cloth $10.00.

SIR JULIAN HUXLEY, the publishers remind us, has described H. J. Muller as "the greatest living geneticist." There is thus no need to labour the point that this volume of his selected papers, chosen by himself and published to mark his seventieth birthday, is an important addition to the literature of genetics.

The book consists of nearly 100 papers and is divided into nine parts: the first is on the Chromosome Basis of Heredity and Linkage, followed by Genotype-Phenotype Relations; Gene Theory; "Spontaneous" Gene Mutations; Gene Mutations Induced by Radiation; Chromosome Properties and Changes; Heterochromatin; Evolution; Human and General Genetics. Except for some hitherto unpublished material written in 1912 and scrapped when Muller was asked to collaborate with Sturtevant and Bridges in *The Mechanism of Mendelian Heredity*, the papers have all appeared in genetic journals, Proceedings of learned societies and volumes of Conference symposia.

The book's value is enhanced by the preponderance of Dr. Muller's earlier papers. This choice was a deliberate one, for much of his early work, besides not being so well known, is not readily available to the younger student to-day.

At the end of the book, preceding a comprehensive index, is a chronological list of "Works by H. J. Muller"—336 of them—from Erroneous

Assumptions regarding Genes (1911–12) to Genetic Nucleic Acid (1961).

Professor G. Pontecorvo has contributed a charming appreciation of "H. J. Muller as a Teacher," and this short notice cannot do better than to close with the final sentence of Joshua Lederberg's Foreword:

Thoughtful reader—you will find a world of rediscovery here.

K. H.